

To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

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Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HITACHI MICROCOMPUTER TECHNICAL UPDATE

DATE	17 January 2002	No.	TN-SH7-393A/E
THEME	SH7706 Electrical Characteristics change		
CLASSIFICATION	<input checked="" type="checkbox"/> Spec change <input type="checkbox"/> Limitation on Use <input type="checkbox"/> Supplement of Documents		
PRODUCTNAME	HD6417706		
REFERENCE DOCUMENTS	SH7706 Hardware manual Rev.1.0	Effective Date Permanent	
		Lot No.: All	

There are some changes of Electrical characteristics in SH7706 hardware manual.

1. AC characteristics

Item	Symbol	Before change		After change		Unit
		Min	Max	Min	Max	
Read data hold time 2	tRDH2	1	—	2	—	ns
Write data delay time 1	tWDD1	—	14	—	12	ns
RAS delay time	tRASD	1	10	1.5	10	ns
CAS delay time	tCASD	1	10	1.5	10	ns
AUDATA delay time	tAUDD	—	10	—	12	ns
AUDSYNC delay time	tAUSYD	—	10	—	12	ns

2. DC characteristics

Item		Symbol	Before change			After change			Unit
			Min	Typ	Max	Min	Typ	Max	
Current dissipation	In sleep mode	Icc	—	10	20	—	15	30	mA
		IccQ	—	15	30	—	10	20	mA
	In standby mode(RTC on)	Icc	—	40	120	—	40	125	μA
		IccQ	—	10	30	—	10	25	μA
	In standby mode(RTC off)	Icc	—	35	110	—	35	110	μA
		IccQ	—	10	30	—	10	25	μA

3. A/D converter characteristics

Item	Before change			After change			Unit
	Min	Typ	Max	Min	Typ	Max	
Conversion time	8.1	—	—	16	—	—	μS